Appln No. 10/731,385 Amdt date January 22, 2008

Reply to Office action of November 27, 2007

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A field emission display, comprising:

a first substrate and a second substrate opposing one another with a gap therebetween, the first substrate and the second substrate being sealed using a sealant wherein a vacuum assembly is formed between the first substrate and the second substrate in a region encompassed by the sealant:

an electron emission assembly located on the first substrate for emitting electrons by generation of electric fields within the electron emission assembly; and

an illumination assembly located on the second substrate for realizing a display of images by electrons emitted from the electron emission assembly,

wherein the illumination assembly includes (a) a transparent conductive layer located on a surface of the second substrate, the transparent conductive layer having a portion extending beyond the sealant as an anode input terminal to which an anode voltage is applied, (b) a phosphor screen located on the transparent conductive layer, and (c) a metal layer located on the phosphor screen within the vacuum assembly, a portion of the metal layer contacting and electrically connected to the transparent conductive layer.

2. (Original) The field emission display of claim I, wherein the transparent conductive layer and the anode input terminal are integrally formed.

3. (Original) The field emission display of claim 2, wherein the transparent conductive layer and the anode input terminal are made of films of indium tin oxide.

-2-

Appln No. 10/731,385

Amdt date January 22, 2008

Reply to Office action of November 27, 2007

4. (Original) The field emission display of claim 1, wherein the metal layer is formed over the phosphor screen having an area larger than the phosphor screen such that edges

of the metal layer contact the transparent conductive layer.

(Original) The field emission display of claim 1,

wherein the electron emission assembly includes electron emission sources and

electrodes for inducing the emission of electrons from the electron emission sources, and

wherein the electrodes include cathode electrodes and gate electrodes insulated from each other by an insulation layer and formed in respective stripe patterns, the cathode electrodes

being substantially perpendicular to the gate electrodes.

6. (Original) The field emission display of claim 5, wherein the electron

emission sources are made of a carbon-based material selected from a group consisting of carbon

nanotubes, graphite, diamond, diamond-like carbon, C_{60} (Fullerene), or a combination of these

materials.

7. (Original) The field emission display of claim 5, further comprising the gate

electrodes being formed on the first substrate, the insulation layer being formed on the first substrate covering the gate electrodes, the cathode electrodes being formed on the insulation

layer, and the electron emission sources being formed on the cathode electrodes.

8. (Original) The field emission display of claim 5, further comprising the

cathode electrodes being formed on the first substrate, the insulation layer being formed on the

first substrate covering the cathode electrodes, the gate electrodes being formed on the insulation layer, the insulation layer and the gate electrodes including openings for exposing the cathode

electrodes, and the electron emission sources being formed in the openings on the exposed

cathode electrodes.

-3-

Appln No. 10/731,385

Amdt date January 22, 2008

Reply to Office action of November 27. 2007

(Currently amended) A field emission display, comprising:

a first substrate and a second substrate opposing one another with a gap therebetween, the

first substrate and the second substrate being sealed using a sealant wherein a vacuum assembly

is formed between the first substrate and the second substrate in a region encompassed by the

sealant:

an electron emission assembly located on the first substrate for emitting electrons by

generation of electric fields within the electron emission assembly; and

an illumination assembly located on the second substrate for realizing a display of images

by electrons emitted from the electron emission assembly,

wherein the illumination assembly includes a phosphor screen located on a first surface

of the second substrate, a metal layer located on the phosphor screen within the vacuum

assembly, and an anode input terminal extending from within the vacuum assembly to outside of

the sealant,

wherein the illumination assembly includes (a) a conductive layer located on a surface of

the second substrate, the conductive layer having a portion extending beyond the sealant as an

anode input terminal to which an anode voltage is applied, (b) a phosphor screen located adjacent the conductive layer, and (c) a metal layer located on the phosphor screen within the vacuum

assembly, a portion of the metal layer contacting and electrically connected to the conductive

laver, and

wherein an end of the anode input terminal within the vacuum assembly contacts both the

phosphor screen and the metal layer-and a portion of the anode input terminal extending beyond

the sealant is configured to receive an anode voltage, and

wherein the anode input terminal is formed from a transparent conductive material.

(Previously presented) The field emission display of claim 9, wherein the

anode input terminal is an indium tin oxide film.

-4-

Appln No. 10/731,385

Amdt date January 22, 2008

Reply to Office action of November 27. 2007

11. (Original) The field emission display of claim 9, wherein the metal layer

covers entirely the phosphor screen and a portion of the anode input terminal.

12. (Previously presented) The field emission display of claim 9,

wherein the electron emission assembly includes electron emission sources and

electrodes for inducing emission of electrons from the electron emission sources, and

wherein the electrodes include cathode electrodes and gate electrodes, the cathode electrodes and the gate electrodes being insulated from each other by an insulation layer and

formed respectively in a stripe pattern, the cathode electrodes being substantially perpendicular

to the gate electrodes.

13. (Original) The field emission display of claim 12, wherein the electron

emission sources are made of a carbon-based material selected from a group consisting of carbon

nanotubes, graphite, diamond, diamond-like carbon, C_{60} (Fullerene), or a combination of these

materials.

14. (Original) The field emission display of claim 12, further comprising the gate

electrodes being formed on the first substrate, the insulation layer being formed on the first substrate covering the gate electrodes, the cathode electrodes being formed on the insulation

layer, and the electron emission sources being formed on the cathode electrodes.

15. (Original) The field emission display of claim 12, further comprising the

cathode electrodes being formed on the first substrate, the insulation layer being formed on the

first substrate covering the cathode electrodes, the gate electrodes being formed on the insulation

layer, the insulation layer and the gate electrodes including openings for exposing the cathode

electrodes, and the electron emission sources being formed in the openings on the exposed

cathode electrodes.

-5-

Appln No. 10/731,385 Amdt date January 22, 2008 Reply to Office action of November 27, 2007

(Previously presented) A flat panel display, comprising:

a faceplate having a faceplate interior side;

a backplate having a backplate interior side in an opposing relationship to the faceplate interior side;

sidewalls positioned between the faceplate and the backplate to form an enclosed vacuum envelope between the sidewalls, the backplate interior side and the faceplate interior side;

a phosphor layer positioned on the faceplate interior side;

a transparent conductive layer located between the faceplate and the phosphor layer;

a metal layer positioned on the phosphor layer,

wherein the metal layer is located entirely within the vacuum envelope, and

wherein the transparent conductive layer includes an anode input terminal extending from within the vacuum envelope to outside the sidewalls.

 (Original) The flat panel display of claim 16, wherein the metal layer has a larger area than the phosphor layer.

18. (Previously presented) The flat panel display of claim 16, wherein the metal layer contacts the anode input terminal within the vacuum envelope and an anode voltage is applied to the anode input terminal outside the sidewalls.

(Canceled)

(Canceled)

(Canceled)

(Canceled)

Appln No. 10/731,385 Amdt date January 22, 2008

Reply to Office action of November 27. 2007

23. (Previously presented) An illumination assembly for a field emission display realizing a display of images by electrons emitted from an electron emission assembly within a vacuum assembly between substrates sealed by a scalant, comprising:

a substrate:

a transparent conductive layer located on a surface of the substrate, the transparent conductive layer having a portion extending beyond the sealant and having an anode input terminal as a portion of the transparent conductive layer extending beyond the sealant to which an anode voltage is applied;

a phosphor screen located on the transparent conductive layer; and

a metal layer located on the phosphor screen, and having a portion of the metal layer for contacting and electrically connecting to the transparent conductive layer within the vacuum assembly.

24. (Original) The illumination assembly of claim 23, wherein the transparent conductive layer and the anode input terminal are integrally formed.

25. (Original) The illumination assembly of claim 23, wherein the metal layer is formed over the phosphor screen having an area larger than the phosphor screen such that edges of the metal layer contact the transparent conductive layer.

-7-